

CONSCIOUSNESS AND THOUGHT

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ABSTRACT

In this paper, the idea that there is an important connection between consciousness and thought is explored. If we ask whether consciousness requires thought, then we find ourselves with conflicting intuitions. It is suggested that this is because phenomenal consciousness does not require thought but accessibility to consciousness does. On the converse question whether thought requires consciousness, Searle has argued that it does. This argument is examined in some detail, in the light of the distinction between phenomenal consciousness and accessibility to consciousness. It is suggested that appeal to the notion of consciousness is not the best way to make explicit what is distinctive about the intentionality of human thought, and also that Searle's argument faces a serious problem. Nevertheless, it remains plausible that there is an important connection between consciousness and thought, and in the final section the idea of applying the notion of phenomenal consciousness in the domain of thought is considered in a speculative way.

1. Introduction

A good deal of the recent literature on consciousness has focused on phenomenal consciousness – the ‘what it is like’ aspect of our experience – and especially on the question whether there is something inevitably elusive or mysterious about phenomenal consciousness; that is, whether there is bound to be an ‘explanatory gap’ between the theories offered by the physical sciences and the subjective character of our sensations and perceptual experiences. It is not obvious, at the outset, whether we should extend the notion of phenomenal consciousness to include thoughts as well as sensory experiences. But the idea of an important connection between consciousness and thought is an engaging one. Sometimes, for example, it seems hard to accept that there could be a fully satisfying reconstruction of thought in the terms favoured by the physical sciences; and this intuition may strike us as similar to the intuition that consciousness somehow defies scientific explanation.

This paper is about the connection between consciousness and the intentionality that is characteristic of human thought. In Section 2, the focus is on the question whether consciousness requires thought and on the notion of accessibility to consciousness. In Section 3, we turn to the converse question, and in particular to Searle's argument that the intentionality of thought requires consciousness. It is suggested that a plausible connection between thought and phenomenal consciousness may have something to do with the crucial role in our perception, thought, and action of perceptual demonstrative thoughts. Then, in the final section, we consider, in a speculative and provisional way, whether there is any other way in which something like phenomenal consciousness might enter a theory of thinking.

2. Does Consciousness Require Thought?

When we ask the question whether a conscious being must also be a thinking being, we are liable to find ourselves with conflicting intuitions. On the one hand, to the extent that consciousness is just a matter of undergoing sensations and other experiences, it does not seem to require the cognitive achievements of thought, judgement, belief and inference. This first intuition is strengthened further if we suppose that there is an essential connection between thought and language; for it is natural to attribute experiences to infants and to other animals that lack language. On the other hand, to the extent that consciousness is a matter of a subject being aware of his or her own psychological states – being able to think about and ultimately to report on those states – then of course consciousness requires all that thinking requires.

A plausible explanation for this conflict of intuitions is that we are actually making use of at least two different notions – or families of notions – of consciousness. Kathleen Wilkes remarks (1988, p. 38) that, ‘it is improbable that something bunching together pains, and thoughts about mathematics, is going to be a reliable pointer to a legitimate natural kind’, and Alan Allport is likewise sceptical that there is any such ‘unitary phenomenon’ as consciousness (1988, p. 162). While it is true that these authors would be almost as dubious about the idea that we can make progress by distinguishing just two notions of consciousness, we might begin by separating phenomenal consciousness from the intuitive idea of *accessibility to consciousness*, an idea that seems to apply quite naturally to (at least some) thoughts. Consideration of this notion will occupy us for most of the present section.

One intuitive manifestation of accessibility to consciousness is availability for explicit verbal expression and report. Thus, suppose that a subject has a belief; say, the belief that the angle in a semicircle is a right angle. Typically such a subject can verbally *express* the content of that belief (by saying, ‘The angle in a semicircle is a right angle’); and she can verbally *report* that she has that belief (by saying, ‘I believe that the angle in a semicircle is a right angle’). If she is unable to do these things, then we may well say that if she has the belief at all then it is an unconscious or tacit belief.

We can say something similar about expressing and reporting our sensations, such as pains. Thus, suppose that a subject has a pain. Typically she can verbally express the pain (by saying, ‘Ouch’) and she can verbally report that she has that pain (by saying, ‘I am in pain’).

But, although we can apply the idea of accessibility to consciousness to both pains and thoughts, there are also differences between the two cases. Pain has something that thought lacks: it is not initially very plausible to suppose that there is anything that it is like to believe that the angle in a semicircle is a right angle. And thought has something that pain lacks: our subject can express the pain, but she cannot express the content of the pain, since pains plausibly do not have any semantic content.

The notion of phenomenal consciousness applies more naturally to sensations than to thoughts. And one aspect of the idea of accessibility to consciousness – namely, accessibility of content to consciousness – applies to the case of thoughts but not to the case of sensations.

2.1 Reporting Thoughts and Other Psychological States

It is legitimate to introduce the idea of accessibility to consciousness via availability for verbal expression and report, but we need to improve on that introduction. Shortly, three different refinements will be considered; but first we need to be a little more careful about the idea of verbal report.

Suppose that our subject verbally reports that she believes that the angle in a semicircle is not always a right angle. Suppose that she says this, not on any introspective grounds but, rather, on the authority of her psychoanalyst. Her analyst credits her with this belief by way of interpreting a range of inappropriate behaviour, and she trusts her analyst even though at this stage of the analytical process she is not yet able to identify with the belief that the analyst attributes to her – she is unable to recognise it ‘from the inside’. Intuitively we do not want the possibility of this kind of verbal report to be enough for accessibility to consciousness.

Suppose that our subject verbally reports that she tacitly knows that an anaphor is bound in its governing category while a pronominal is free in its governing category (Chomsky, 1986, p. 166). Suppose that she reports this on the authority of her linguistics professor, who has credited her with this piece of tacit knowledge by way of a partial explanation of her judgements about the grammaticality or otherwise of sentences such as:

I told them about each other.

I told them that Bill liked each other.

Once again, we would not want the possibility of this kind of report to count as accessibility to consciousness.

There are important differences between attributions of unconscious knowledge and belief in the case of psychoanalysis and in the case of theoretical linguistics. But the common feature that matters here is that, in each case, the subject’s ability to make her report depends on much more than just her being in the state that is reported on. In each case, she relies on the authority of a third party. We do not want these cases to count as examples of accessibility to consciousness. So, we should say that a state that has semantic content is accessible to consciousness if *simply in virtue of being in that state and without any help from third parties* the subject is able to express verbally the content of the state, and to report verbally that she is in the state.

This takes us closer to a sufficient condition for an intuitively recognisable notion of accessibility to consciousness. But it would be natural to question whether the requirement of verbal report should really be included as a necessary condition.

2.2 First Refinement: Rational Control of Action

Allport, for example, notes that the requirement of availability for verbal report seems to rule out the possibility of accessibility to consciousness in a global aphasic (1988, p. 163), and goes on to consider an alternative criterion in terms of action (p. 165):

In common usage, it seems, to be aware of something or conscious of something carries at least the implication that ‘something’ can guide or control my choice of *action*.

But, the problem that Allport then raises is that this criterion trades crucially on the distinction between voluntary and involuntary actions, and ‘there seems little distinction to be made between a “voluntary” action and one “consciously directed”’ (1988, p. 167). In short, the voluntary action criterion seems to reintroduce the very notion that it is intended to clarify.

The criterion that Allport discusses is similar in spirit to Ned Block’s account of *access consciousness* (1995, p. 231):

A state is access-conscious if, in virtue of one’s having the state, a representation of its content is (1) inferentially promiscuous, i.e. poised to be used as a premise in reasoning, (2) poised for rational control of action, and (3) poised for rational control of speech. . . . I see [access consciousness] as a cluster concept, in which (3) – roughly, reportability – is the element of the cluster with the smallest weight, though (3) is often the best practical guide to [access consciousness].

We can take this – in which the verbal report requirement is heavily diluted – as our first refinement of the idea of accessibility to consciousness.

The word ‘rational’ is not idle here. It is needed, rather as ‘voluntary’ is needed in the criterion discussed by Allport; so that may suggest that there is a circularity looming. But, the prospect of a circularity problem is not our main concern here. Rather, we want to notice that Block’s appeal to reasoning and rational action suggests that this first refinement of the idea of accessibility to consciousness is pointing us towards key notions in an account of human thinking – notions of theoretical and practical reasoning. What seems to be important, according to this first refinement, is that a state that is accessible to consciousness should have the kind of content or intentionality that fits it to figure in a domain of inference, rationality, and judgement.

2.3 *Second Refinement: Thought Content*

On many conceptions of the relationship between thought and language, the verbal expression or report of a psychological state is a relatively contingent effect of something more fundamental, namely, a judgement, or more generally a piece of thinking. This reflection suggests a slightly different refinement of the idea of accessibility to consciousness, one that leads us even more rapidly than the first refinement to the notion of thought content. We might say that a state with semantic content is accessible to consciousness if, simply in virtue of being in that state, the subject is able to entertain in thought the semantic content of the state.

It might seem, at first, that there is something trivial about this second refinement. Suppose, for example, that we consider how it applies to the case of beliefs. Believing is a kind of thinking – along with framing a hypothesis, wondering whether it is so, doubting that it is so, wishing that it were so, and the like. So it is immediate that to be in a belief state is *ipso facto* to have the content of the belief available as a content of thought.

In order to appreciate the import of the second refinement, we need to suppose that there are also psychological states that have a different kind of semantic content from the content of thoughts. Thought content is a kind of *conceptualised* content. By this we mean that no one can think a thought with a particular content without possessing the constituent concepts of that thought. No one can believe that – or wonder whether, or doubt that, or wish that – the angle in a semicircle is a right angle, without possessing the concepts of angle, semicircle, right angle, and so

on. In contrast, psychological states with *non-conceptualised content* would be contentful states that a subject could be in even though he or she did not possess the concepts that we would use to specify the states' contents. Clearly, to be in such a psychological state would not *ipso facto* be to have the content of the state available as a content of thought.

So, finally, we see that this second refinement of the idea of accessibility to consciousness leads to an important distinction; namely, the distinction between psychological states whose content is necessarily conceptualised by the subject of those states (these are principally propositional attitude states) and psychological states that have semantic content even though that content need not be conceptualised by the subject of those states.

2.4 Third Refinement: Adding in Judgements About Psychological States

When we introduced the idea of accessibility to consciousness, we distinguished verbal expression from verbal report. The subject can express verbally the content of the state, and can report verbally that she is in the state. When we strip away the requirement of verbal report, we can still retain two components. The first component says that if a psychological state with semantic content is accessible to consciousness, then to be in the state is *ipso facto* to have the content of the state available as a content of thought. The second component says that if a psychological state is accessible to consciousness, then to be in the state is *ipso facto* to be in a position to judge that one is in that state. The refinement of the idea of accessibility to consciousness that we have just considered (Section 2.3) omits that second component. Let us now try adding it in.

The second component says that to be in a state that is accessible to consciousness is *ipso facto* to be in a position to judge that one is in that state. But there is a problem with that requirement, and we need to go into some complications to deal with it. It is plausible that, for many psychological states, it is possible for a subject to be in the state without possessing the concept of that type of psychological state. Suppose, in particular, that it is possible to believe that the angle in a semicircle is a right angle without having the concept of belief. Then clearly, just to have the belief is not yet to be in a position to judge that one has the belief, since in order to believe that she *believes* that the angle in the semicircle is a right angle the subject needs to have the concept of belief.

If we are going to add in the second component, then we shall get closer to an intuitive notion of accessibility to consciousness if we restrict attention to subjects who do possess the concept of the type of psychological state in question.

Given that restriction, what difference does it make if we add in the second component? If a state is classified as not accessible to consciousness by the lights of the first component (because, say, the content of the state is not conceptualised by the subject), then it is likewise classified as not accessible to consciousness when we add in the further requirement of the second component. So much is obvious. But, in fact, the second component itself suffices for the negative verdict in these cases. Let us briefly see why this is so.

In order to judge that she is in a state of a certain type and with a certain content, a subject needs to possess the concept of that type of state, and also to possess the concepts that figure in the specification of the content. Let us suppose

that a subject can be in a state of tacitly knowing that an anaphor is bound in its governing category while a pronominal is free in its governing category, without possessing the concepts of anaphor, governing category, and so on. Then to be in such a state of tacit knowledge is not *ipso facto* to be in a position to judge that one is in that state, *even if* one possesses the concept of tacit knowledge. This is simply because the content of the state, which is not conceptualised by the subject, is not *ipso facto* available to the subject as a content of thought. In effect, the second component contains the first component within it.

The difference that is made by adding in the second component becomes visible when we consider states with conceptualised content, for in such cases the first component is trivial. If, for example, our subject has a belief then, trivially, the content of the belief is available as a content of thought. But intuitively, it is a further question whether the subject is, just in virtue of having the belief, in a position to judge that she has that belief. Indeed, intuitively this further question is quite closely related to the question whether the belief is a conscious belief or not.

2.5 *Conscious Beliefs and Judgements About Beliefs*

Let us explore for a moment the question whether this third refinement of the idea of accessibility to consciousness quite captures the intuitive idea of a conscious belief.

Suppose that a subject has a belief and is *ipso facto* in a position to judge that she has that belief. Then, it is very natural to suppose that there must be something about her belief state in virtue of which she is in a position to make that judgement. We might now ask which of two candidates it is that constitutes the belief's being a conscious belief. One candidate is the subject's being in a position to judge that she has that belief. The other candidate is the belief state's having the property – whatever property it is – that explains why the subject is placed in such a position. The issues here are difficult, but it seems to be at least arguable that we should prefer the second candidate, rather than the first; that is, that we should prefer the explanatory property, rather than the more dispositional property that it explains. If that is right, then we must enter a reservation as to whether the third refinement, which is defined in terms of the more dispositional property, goes quite to the heart of the intuitive notion of a conscious belief.

It should be acknowledged, though, that more work needs to be done if this appeal to an explanatory property of belief states is to be ultimately satisfying. A subject who is in pain is, we suppose, in a position to judge that she is in pain, provided only that she possesses the concept of pain. In this case, we may say that it is the pain state's being a phenomenally conscious state that explains why being in the state disposes the subject to judge that she is in pain. Phenomenal consciousness figures naturally as the basis property that explains the dispositional property of accessibility to consciousness. But if we extend this kind of account from sensations to thoughts, then we seem to be bound to extend a notion like phenomenal consciousness to thoughts too. That may be the right thing to do, but we should need to reconcile that theoretical move with our earlier suggestion that it is not initially very plausible to suppose that there is anything that it is like to believe that the angle in a semicircle is a right angle.

2.6 *Is Thought a Necessary Condition for Consciousness?*

We have been considering three ways of refining the idea of accessibility to consciousness. Let us now return to our question: Does consciousness require thought?

If we consider accessibility to consciousness first, then the close tie with thought is immediately obvious. This is so even when the psychological state under consideration is not itself a thought. Consider the accessibility to consciousness of a pain, for example. The psychological state is accessible to consciousness in virtue of the fact that the subject of the state, possessing the concept of pain, is in a position to judge that she is in pain. But then it is clear that the subject is capable of thought.

In the case of phenomenal consciousness, however, the plausible answer to our question is surely that it does not require thought. To see this, consider a phenomenally conscious psychological state – a pain, say – that is also accessible to consciousness. This means that the subject of the pain is able to judge that she is in pain. So here phenomenal consciousness is accompanied by the capacity for thought. But, as we have already noted, we may say that it is the pain state's being a phenomenally conscious state that explains the subject's disposition to judge that she is in pain. So, the pain's being a phenomenally conscious state is not itself dependent on the subject's ability to make that judgement. Phenomenal consciousness, though it may be accompanied by thought, does not depend on thought.

3. Does Thought Require Consciousness?

In an important paper, John Searle (1990) argues strongly for an affirmative answer to this question. Indeed, according to Searle, it is not just that a thinking being needs to be a conscious being. Rather, a requirement of consciousness – of accessibility to consciousness 'in principle' – applies thought by thought, intentional state by intentional state. This is stated in Searle's *Connection Principle* (1990, p. 586):

The ascription of an unconscious intentional phenomenon to a system implies that the phenomenon is in principle accessible to consciousness.

We may well agree with Searle that there is much that is important and special about the kind of intentionality that is characteristic of human thought, and also that there is a plausible connection between thought and consciousness. But there would remain the question whether appeal to the notion of accessibility to consciousness is the best way to make explicit what is distinctive about thought.

Suppose that we begin with the distinction between thought – propositional attitude states – and the kinds of information processing states that are appealed to in cognitive psychology; these latter are often called *subdoxastic states*. Chomsky (1986), for example, argues that the difference between subdoxastic states and states of ordinary knowledge and belief is to be characterised in terms of accessibility to consciousness, and that the distinction is of no great importance for serious explanatory purposes. We might suggest (Davies, 1989), as against Chomsky, that three intuitive differences between beliefs and subdoxastic states – accessibility to consciousness, inferential integration, and conceptualisation – add

up to a *prima facie* case for a principled distinction. Nevertheless, it is difficult to ground the distinction between beliefs and subdoxastic states on the difference between accessibility and inaccessibility to consciousness.

In Section 2, we considered three refinements of the notion of accessibility to consciousness. The first two refinements pointed us more or less directly in the direction of the distinction between conceptualised and non-conceptualised content as what is fundamental. The third refinement went beyond the notion of conceptualised content by introducing the further requirement that the subject should be in a position to judge that she is in the state in question. But, as we noted, the effect of this requirement is only visible when it is used to distinguish between conscious and unconscious beliefs. This means that the added requirement is no help when the distinction at issue is that between beliefs (including unconscious beliefs) on the one hand and subdoxastic states on the other.

Even if appeal to the notion of accessibility to consciousness is not the best way to make explicit what is distinctive about thought, still there may be an important link between the intentionality of thought and consciousness; and that link may be mediated by the requirement of conceptualisation. Indeed, conceptualisation is a close relative of the notion that plays a pivotal role in Searle's argument for the Connection Principle, the notion of aspectual shape. We now turn to that argument.

3.1 *The Argument for the Connection Principle*

Searle's argument for the Connection Principle turns on the claim (Step 2 of his argument) that 'Intrinsic intentional states . . . always have aspectual shapes' (1990, p. 587). The notion of aspectual shape is explained as follows (*ibid.*):

Whenever we perceive anything or think about anything, it is always under some aspects and not others that we perceive or think about that thing.

and then further elucidated by way of some examples (*ibid.*):

When you see a car it is not simply a matter of an object being registered by your perceptual apparatus; rather you actually have the conscious experience of the object from a certain point of view and with certain features.

A man may believe . . . that the star in the sky is the Morning Star without believing that it is the Evening Star.

A man may . . . want to drink a glass of water without wanting to drink a glass of H₂O.

What both the explanation and the examples suggest is that Searle's notion of aspectual shape is much the same as Frege's notion of a mode of presentation. In the domain of judging, believing and inferring, objects and properties are always thought about under a mode of presentation – they are thought about in one way rather than another. And perceptual experiences make possible thoughts about objects and properties under perceptual demonstrative modes of presentation. So, the doctrine about aspectual shape is something to which we are committed, if we think that conceptualisation is what is distinctive of the intentionality of human thought, and if we have a neo-Fregean view of what conceptualisation involves. Let us agree, then, that intentionality requires a Fregean sense-reference distinction.

The question now is whether there is a close link between conceptualisation and consciousness. We can consider this question first for accessibility to consciousness and then for phenomenal consciousness.

The answer to the question whether there is a close link between conceptualisation and accessibility to consciousness, as we have discussed that notion, is that the connection is all too close. Searle's notion of accessibility to consciousness in principle is intended to apply to unconscious beliefs, and we have just noted that the notions of accessibility to consciousness that meet that requirement (the first and second refinements) are scarcely distinguishable from the notion of conceptualisation. Interpreted in terms of accessibility to consciousness then, the Connection Principle says that the intentionality of human thought involves a special kind of semantic content – conceptualised content. This seems to be a correct conclusion; but it is surely less than Searle was seeking to establish.

3.2 Thought and Phenomenal Consciousness

The question whether there is a close link between conceptualisation and phenomenal consciousness is much more difficult to answer. But Searle's argument – from pivotal point to conclusion – does make good sense when construed as directed towards a positive answer to this question. When Searle says (Step 3 of his argument: 1990, p. 587):

The aspectual feature cannot be exhaustively or completely characterized solely in terms of third person, behavioral, or even neurophysiological predicates. None of these is sufficient to give an exhaustive account of aspectual shape.

it is impossible not to be reminded of Nagel on the elusiveness of phenomenal consciousness (Nagel, 1974/1979, p. 167):

If physicalism is to be defended, the phenomenological features must themselves be given a physical account. But when we examine their subjective character it seems that such a result is impossible. The reason is that every subjective phenomenon is essentially connected with a single point of view, and it seems inevitable that an objective, physical theory will abandon that point of view.

What Nagel says about phenomenal consciousness is somewhat similar to what Searle says about the aspectual shape of intentional states. But there is a complication that we must deal with at this point. We said at the outset that phenomenal consciousness applies more naturally to sensations than to thoughts. Later (at the end of Section 2.5), we considered the possibility of extending a notion like phenomenal consciousness to thoughts as well, and we noted that it would be necessary to address the tension between such an extension and the earlier idea that there is nothing that it is like to have a particular belief. For our present purposes of examining Searle's argument for the Connection Principle, we shall have to assume that this tension can be relieved, and that we can indeed make use of a notion that is at least similar to phenomenal consciousness and extends to what we would intuitively regard as conscious beliefs.

Against that background, suppose that we were to grant both that the intentionality of human thought involves aspectual shape (Step 2), and that the fundamental philosophical account of aspectual shape adverts to the subjective, 'what it is like' aspect of being in the intentional state in question (something very like Step 3). Then it would be natural to argue from those two premises to the conclusion that there is something problematic about the notion of an intentional state for which there is nothing that it is like to be in that state. This is essentially the point Searle reaches at his Stage 4: 'Now we seem to have a contradiction' (Searle, 1990, p. 588). Furthermore, it would then be practically inevitable to

suggest a particular way of resolving the apparent contradiction. A state to which the philosophically fundamental account of aspectual shape cannot apply directly could be credited with aspectual shape derivatively from some other state to which it stands in an appropriately intimate relationship. One candidate for the required relationship would be causal antecedence. Thus, Searle (1990, p. 588):

[T]he only fact about the neurophysiological structures [realising states that there is nothing that it is like to be in] that corresponds to the ascription of intrinsic aspectual shape is the fact that the system has the causal capacity to produce conscious states and processes where those specific aspectual shapes are manifest.

This is not yet to say that this would be a satisfactory candidate; for there would be a legitimate query to be raised as to whether the relationship of causal antecedence is quite intimate enough. After all, subdoxastic states – which stand in contrast with thought states – are defined by Stich (1978, p. 499) as states that ‘play a role in the proximate causal history of beliefs’. But this is a matter of detail that will not be pursued here. What we need to notice is just that it is clear enough how to proceed from premises corresponding to Steps 2 and 3 of Searle’s argument to something very close to his conclusion.

Once we allow the extension of something like the notion of phenomenal consciousness to encompass conscious beliefs, Searle’s actual argument for the Connection Principle makes good sense when it is construed as an argument for a link between the intentionality of human thought and phenomenal consciousness. But that is not yet to say that the argument is compelling.

3.3 The Problem with the Argument

The reconstructed argument begins from two premises. One premise is that the intentionality of human thought involves aspectual shape. To the extent that aspectual shape is equivalent to Frege’s sense or mode of presentation, this premise is something to which we are committed by what we have said about conceptualisation. The other premise is that the fundamental philosophical account of aspectual shape adverts to what it is like to be in the intentional state in question. This premise is controversial if aspectual shape is taken to be equivalent to Fregean mode of presentation or sense.

One possible reason for controversy is that this premise depends crucially on the extension of the notion of phenomenal consciousness from sensations and perceptual experiences to conscious beliefs. But what is more important for our purposes is that this premise depends on an extrapolation to all modes of presentation from the case of conscious perceptions: ‘Aspectual shape is most obvious in the case of conscious perceptions’ (Searle, 1990, p. 587). This premise can, of course, be rendered uncontroversial by a stipulation about the way in which the notion of aspectual shape is to be taken. But then, the controversy is simply shifted to the other premise. For nothing that we have said about conceptualisation leads to the view that there is always a subjective, ‘what it is like’ aspect of being in an intentional state.

As we are construing Searle’s argument for the Connection Principle, then, the problem that it faces is this. The argument turns on the claim that ‘Intrinsic intentional states . . . always have aspectual shapes’. If a requirement of phenomenal consciousness is built into the notion of aspectual shape, then the argument onwards from the pivotal point is plausible, but the claim itself is

controversial. If a requirement of phenomenal consciousness is not built into the notion of aspectual shape, then the claim itself is plausible, but the onward argument limps.

But even if the argument for the Connection Principle is not absolutely compelling, still there may well be an important truth connecting intentionality and phenomenal consciousness. The intentionality of human thought involves conceptualisation, and conceptualisation involves senses or modes of presentation. Amongst modes of presentation, those demonstrative modes of presentation that are afforded by perceptual experience constitute particularly clear examples. Suppose now that we could argue that some theoretical primacy attaches to perceptual demonstrative modes of presentation. Suppose, even, that we could argue that in order to be able to think about objects at all, a subject needs to be able to think about objects under perceptual demonstrative modes of presentation. Then there would be a deep connection between intentionality and consciousness, just as Searle says, although not one that holds intentional state by intentional state.

Whether or not we can establish any theoretical primacy for perceptual demonstrative thoughts is not a topic for this paper. But considerations in favour of such primacy could begin from the role of demonstrative thoughts in the explanation of a subject's actions on objects in her environment (Perry, 1979).

4. Conscious Thought and Reasoning

We have distinguished between phenomenal consciousness and accessibility to consciousness, and considered the connection between each of these and thought. Accessibility to consciousness is very closely tied to the intentionality of thought, as refinements of the notion lead directly to the idea of conceptualised content. Phenomenal consciousness does not seem to require thinking (Section 2), but there is a plausible connection from thought to phenomenal consciousness via of aspectual shape (Section 3). We have suggested that it may be difficult to establish this connection on an intentional state by intentional state basis, but that it may have to do with the crucial role in our perception, thought, and action of perceptual demonstrative thoughts. In this final section, we consider, in a speculative and provisional way, whether there is any other way in which something like phenomenal consciousness might enter a theory of thought.

We begin with what Tyler Burge describes as critical reasoning (1996, p. 98–9).

Critical reasoning is reasoning that involves an ability to recognise and effectively employ reasonable criticism or support for reasons and reasoning. It is reasoning guided by an appreciation, use, and assessment of reasons and reasoning as such. As a critical reasoner, one not only reasons. One recognises reasons as reasons. . . .

Essential to carrying out critical reasoning is using one's knowledge of what constitutes good reasons to guide one's actual first-order reasoning.

Not all reasoning is critical reasoning. But it is arguable that the possibility of critical reasoning is an essential part of normal adult reasoning as we know it. Thus, as Burge says (*ibid.*): 'A non-critical reasoner reasons blind, without appreciating reasons as reasons. Animals and children reason in this way.'

Critical reasoning is naturally regarded as a conscious, rational, and knowledge-yielding activity; but it is not yet clear what we are to make of the

notion of consciousness as it figures here. Critical reasoning certainly involves both thought and judgements about our thoughts. So it involves accessibility to consciousness, as we have discussed that notion. But we should also consider whether we can gain any insight into how a notion like phenomenal consciousness might apply to thoughts by reflecting on the idea of reasoning as a rational and knowledge-yielding activity.

To that end, let us imagine a thinker, Bruce, who believes that *A or B* and also believes that *not-A*. Then it is likely that Bruce will also believe that *B*, or will come to believe it if the question whether *B* arises. Bruce's transition in thought is a rational one, and it is the kind of transition that could yield Bruce knowledge that *B* if he started out from knowledge that *A or B* and that *not-A*. What are the conditions under which we are able to regard this causal transition in the mental life of a person as rational and potentially knowledge-yielding? We shall briefly mention three such conditions.

The first condition is an abstract one, namely that Bruce's first two beliefs should actually constitute a good reason for believing the third thing. In order to show that this condition is met, we would point out that the first two believed propositions entail the third. The argument with the first two beliefs as premises and the third belief as conclusion, instantiates a valid form. The general point here is that, in order to show how Bruce's transition at least could be a rational one, we need to conduct an investigation with an abstract subject matter: we plot the contours of an abstract logical space.

This abstract condition is not yet sufficient for us to regard Bruce's transition in thought as rational. We have said that if Bruce believes that *A or B* and that *not-A*, then the right thing for Bruce to think in addition is that *B*. Those first two things that Bruce thinks are a reason for someone to think that *B*. But if they are to be Bruce's reason, then something more must be true: Bruce's believing, or coming to believe, the first two things must cause him to believe the third thing. The second condition is thus a causal one.

However, these two conditions are still not yet sufficient for Bruce's transition to be a rational one. The problem is to connect the abstract logical condition and the causal condition in the right way. What we want is that Bruce's believing that *A or B* and that *not-A* should cause him to believe that *B* because believing those first two things is a good reason to believe that third thing. What we do not want is to require that Bruce should use an extra premise, such as the belief that *((A or B) and not-A) entails B*. There are two reasons for not imposing this requirement of an extra premise. One reason is that it is potentially regressive, since we can raise the question about rationality over again, but now concerning the inference with this extra premise. The other reason is that what seems to be important here is the form of the inference; but, intuitively, a thinker can appreciate that an inferential transition is of a valid form, and indeed perform the transition because it is of that form, without necessarily being able to conceptualise or spell out what that form is. The inevitable suggestion is that, although he need not conceptualise the form of the inference, still, in some way, Bruce should be aware of his beliefs, and the transition between them, as instantiating that form. It is here that something like phenomenal consciousness for thoughts might enter the picture.

The idea would be that it is because Bruce's thoughts have this property that they have the more dispositional properties mentioned in Block's definition of access consciousness, for example. Also, this property would figure in the explanation of Bruce's being able to engage in critical reasoning. It is far from clear, however, whether this idea can be worked out in a satisfactory way. One question that would need to be answered, for example, would be whether the idea requires a sensational phenomenology for thinking. If it does require that, then it might be natural to suggest that phenomenally conscious thoughts are clothed in the phonological or orthographic forms of natural language sentences (Carruthers, 1996). But we shall not pursue these issues further here.

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